

IN THE CLAIMS:

1. (currently amended) A method of operating a wireless transmitter to wirelessly transmit a data packet on a variable rate channel to a receiver, the method comprising:

transmitting a first transmission block portion ~~and a second transmission block portion~~ to the receiver in a first transmission at a first data transmission rate; and

5 when the receiver does not successfully decode the first transmission in a first decoding, transmitting a second transmission block portion in a second transmission to the receiver at a second data transmission rate different from the first data transmission rate, wherein the second transmission includes at least a portion of the first transmission block portion and has a coding rate that differs from a coding rate of the first transmission block portion.

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2. (currently amended) The method of claim 1, further comprising, when the receiver does not successfully decode a combination of the first transmission and the second transmission in a second decoding, transmitting a third transmission to the receiver at the second data transmission rate, wherein the third transmission includes at least a portion of the second transmission block portion and has a coding rate that differs from the coding rate of the first

15 transmission block portion and the coding rate of the second transmission.

3. (currently amended) The method of claim 2, further comprising, when the receiver does not successfully decode a combination of the first transmission, the second

20 transmission, and the third transmission in a third decoding, transmitting a fourth transmission to the receiver at a third data transmission rate that is different from at least one of both the first data transmission rate and the second data transmission rate, wherein the fourth transmission includes at least a portion of the first transmission block portion.

4. (original) The method of claim 3, further comprising, when the receiver does not successfully decode a combination of the first transmission, the second transmission, the third transmission, and the fourth transmission in a fourth decoding, transmitting a fifth transmission to the receiver at the third data transmission rate, wherein the fifth transmission includes the second transmission block.

5. (original) The method of claim 4, wherein:

the second data transmission rate is less than the first data transmission rate; and

the third data transmission rate is less than the second data transmission rate.

6. (original) The method of claim 1, wherein:

the transmitter is a base station; and

the receiver is a user terminal.

7. (original) The method of claim 1, wherein:

the transmitter is a user terminal; and

the receiver is a base station.

8-35 (cancelled)

36. (currently amended) A base station that acts as a transmitter to wirelessly transmit a data packet on a variable rate channel to a user terminal acting as a receiver, the base station comprising:

an antenna;

5 a Radio Frequency unit coupled to the antenna; and

at least one digital processor coupled to the Radio Frequency unit that executes software instructions causing the base station to:

transmit a first transmission block portion ~~and a second transmission block portion~~ to the receiver in a first transmission at a first data transmission rate; and

10 when the receiver does not successfully decode the first transmission in a first decoding, transmit a second transmission block portion in a second transmission to the receiver at a second data transmission rate different from the first data transmission rate, wherein the second transmission includes at least a portion of the first transmission block portion and has a coding rate that differs from a coding rate of the first transmission block portion.

15 37-41 (cancelled)

42. (currently amended) A plurality of software instructions stored on a media that, upon execution by a base station, cause the base station to act as a transmitter to wirelessly  
20 transmit a data packet on a variable rate channel to a user terminal acting as a receiver, the plurality of software instructions comprising:

a set of instructions executed by the base station that cause the base station to transmit a first transmission block portion ~~and a second transmission block portion~~ to the receiver in a first transmission at a first data transmission rate; and

a set of instructions executed by the base station that cause the base station to, when the receiver does not successfully decode the first transmission in a first decoding, transmit a second transmission block portion in a second transmission to the receiver at a second data transmission rate different from the first data transmission rate, wherein the second transmission includes at least  
5 a portion of the first transmission block portion and has a coding rate that differs from a coding rate of the first transmission block portion.

43-57. (cancelled)

10 58. (new) The method of claim 1, wherein the second data rate is less than the first data rate.

59. (new) The method of claim 1, further comprising:  
applying a first spreading factor to the first transmission to cause the first data  
15 transmission rate; and  
applying a second spreading factor to the second transmission to cause the second data transmission rate, wherein the second spreading factor differs from the first spreading factor.

60. (new) A method of operating a wireless transmitter to wirelessly transmit a data packet on a variable rate channel to a receiver, the method comprising:

coding a plurality of data bits of the data packet to produce a plurality of parity bits, wherein the plurality of data bits and the plurality of parity bits comprise an encoder packet;

5 forming a first sub packet from the encoder packet as a first transmission, the first sub packet including the data bits and a first set of the parity bits, and the first sub packet having a first coding rate;

transmitting the first transmission to the receiver at a first bit rate;

receiving an indication from the receiver that the first transmission was not successfully  
10 decoded; and

forming a second sub packet from the encoder packet as a second transmission, the second sub packet having a second set of parity bits that are different than the first set of parity bits, and the second sub packet having a second coding rate;

transmitting the second transmission to the receiver at a second bit rate that differs from the  
15 first bit rate;

receiving an indication from the receiver that the first transmission and the second transmission were not successfully decoded;

forming a third sub packet from the encoder packet as a third transmission, the third sub packet having a third set of parity bits that are different than the first set of parity bits and the second  
20 set of parity bits, and the third sub packet having a third coding rate; and

transmitting the third transmission to the receiver at a third bit rate that differs from at least the first bit rate.

61. (new) The method of claim 60, further comprising:

25 receiving an indication from the receiver that the first transmission, the second transmission, and the third transmission were not successfully decoded;

forming a fourth sub packet from the encoder packet as a fourth transmission, the fourth sub packet having a fourth set of parity bits that are different than the first set of parity bits, the second set of parity bits, and the third set of parity bits, and the fourth sub packet having a fourth coding  
30 rate; and

transmitting the fourth transmission to the receiver at a fourth bit rate that differs from at least the first bit rate.

62. (new) The method of claim 60, wherein the first coding rate, the second coding rate, and the third coding rate are the same coding rate.

5 63. (new) The method of claim 60, wherein the second coding rate and the third coding rate are less than the first coding rate.

64. (new) The method of claim 60, wherein the second bit rate and the third bit rate are less than the first bit rate.

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65. (new) The method of claim 60, further comprising:  
the receiver soft combining the first transmission with the second transmission and attempting to decode a combined result;

15 the receiver soft combining the first transmission, the second transmission, and the third transmission and attempting to decode a combined result.

66. (new) A method of operating a wireless transmitter to wirelessly transmit a data packet on a variable rate channel to a receiver, the method comprising:

coding a plurality of data bits of the data packet to produce a plurality of parity bits, wherein the plurality of data bits and the plurality of parity bits comprise an encoder packet;

5 forming a first sub packet from the encoder packet as a first transmission, the first sub packet including the plurality of data bits and a first set of the parity bits and having a first coding rate;

transmitting the first transmission to the receiver at a first bit rate;

10 receiving an indication from the receiver that the first transmission was not successfully decoded; and

forming a second sub packet from the encoder packet as a second transmission, the second sub packet including at least some of the plurality of data bits and a second set of parity bits that are different than the first set of parity bits, the second transmission having a second coding rate;

15 transmitting the second transmission to the receiver at a second bit rate that is less than the first bit rate;

receiving an indication from the receiver that the first transmission and the second transmission were not successfully decoded;

20 forming a third sub packet from the encoder packet as a third transmission, the third sub packet including at least some of the plurality of data bits and a third set of parity bits that are different than the first set of parity bits and the second set of parity bits, the third transmission having a third coding rate;

transmitting the third transmission to the receiver at a third bit rate that is less than the first bit rate.

25 receiving an indication from the receiver that the first transmission, the second transmission, and the third transmission were not successfully decoded;

forming a fourth sub packet from the encoder packet as a fourth transmission, the fourth sub packet including at least some of the plurality of data bits and a fourth set of parity bits that are different than the first set of parity bits, the second set of parity bits, and the third set of parity bits, the fourth sub packet having a fourth coding rate; and

30 transmitting the fourth transmission to the receiver at a fourth bit rate that is less than the first bit rate.

67. (new) The method of claim 66, wherein the first coding rate, the second coding rate, the third coding rate, and the fourth coding rate are the same coding rate.

5 68. (new) The method of claim 66, wherein the second coding rate, the third coding rate, and the fourth coding rate are less than the first coding rate.

69. (new) The method of claim 66, further comprising:

the receiver soft combining the first transmission with the second transmission and attempting to decode a combined result;

10 the receiver soft combining the first transmission, the second transmission, and the third transmission and attempting to decode a combined result.



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